

**REMARKS**

Claims 18 and 26 stand rejected under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the enablement requirement. Reconsideration is requested.

The specification need not disclose what is well-known to those skilled in the art and preferably omits that which is well-known to those skilled and already available to the public. *In re Buchner*, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986), cert. denied, 480 U.S. 947 (1987); and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1463, 221 USPQ 481, 489 (Fed. Cir. 1984).

The state of the art existing at the filing date of the application is used to determine whether a particular disclosure is enabling as of the filing date. *Chiron Corp. v. Genentech Inc.*, 363 F.3d 1247, 1254, 70 USPQ2d 1321, 1325-26 (Fed. Cir. 2004).

At the time the present application was filed, contactless switches were well known in the art as evidenced by the attached web pages which were located in the search results of a Google search for “Contactless Switch.” As can be seen from the attached web pages, contactless switches can be realized in a number of different forms including, without limitation: a microwave contactless switch; an infrared contactless switch; and a hall effect contactless switch. In fact, the web pages for the microwave contactless switch and the infrared contactless switch indicate their applicability for ADA [Americans With Disabilities Act] applications for remote door control systems. Accordingly, not only were contactless switches well known in the art before the filing date of the present application, but they have also been utilized for remote door control systems. Accordingly, reconsideration is requested of the rejection of claims 18 and 26 under 35 U.S.C. § 112, first paragraph.

Claim 17 stands rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness. It is believed that the foregoing amendment to claim 17 overcomes this rejection.

Applicants acknowledge with appreciation the Examiner’s indication that claims 16 and 20 would be allowable if rewritten in independent form, including all the limitations of the base claim and any intervening claims. In response to this indication, independent claim 13 has been amended to include limitations from claims 14 and 16; dependent claim 20 has been amended to be an independent claim including limitations from claims 13 and 19; claim 14 has been cancelled; claim 15 has been amended to depend from claim 13 instead of cancelled claim 14; claim 16 has been cancelled; claims 18 and 21 have been amended to improve their form; claim 25 has been amended to depend from claim 13 instead of cancelled claim 14; new claims

27-35 have been included dependent from claim 20 and including the limitations of claims 14-18, 26, 21, 22 and 25, respectively; new independent claim 36 has been added including limitations from claims 13 and 18; and new claim 37 dependent from claim 36 has been added including limitations from claim 26. After the foregoing amendments, the following claims are pending in the application: independent claim 13 having claims 15-18, 21, 22, 25 and 26 dependent therefrom; independent claim 20 having claims 27-35 dependent therefrom; and independent claim 36 having claim 37 dependent therefrom.

Claims 13-15, 17, 19, 21, 22, 24 and 25 stand rejected under 35 U.S.C. § 103(a) for obviousness from the teachings of U.S. patent documents 4,821,786 to Johnston in view of 2001/0030028 to Poppema. It is believed that the foregoing amendments overcome this rejection.

Regarding claim 36, this new claim is a combination of claims 13 and 18. In the Office Action, no rejection based on prior art was applied against claim 18. However, in the Office Action, it was generally alleged that Applicants' amendment clarifying the scope of the claims necessitated the new grounds of rejection presented in the Office Action. Accordingly, the Action was made final. It is respectfully submitted that the finality of the Office Action with respect to at least claim 18 is premature. Specifically, nothing in the original form of claim 18 which, by reference, includes the limitations of claim 13 or, in the amended form of claim 18 in the February 21, 2007 Office Action, should have prevented at least a reasonable search for prior art. Accordingly, Applicants have not been accorded an opportunity to consider and respond to any prior art rejection of claim 18 that may arise. Accordingly, Applicants respectfully request the Examiner withdraw the finality of the Office Action, at least with respect to claim 36, which is a combination of claims 13 and 18, and 37.

**CONCLUSION**

Based on the foregoing amendments and remarks, reconsideration of the rejections and allowance of 13, 15, 17, 18, 20-22 and 25-37 are requested.

Respectfully submitted,

THE WEBB LAW FIRM

By



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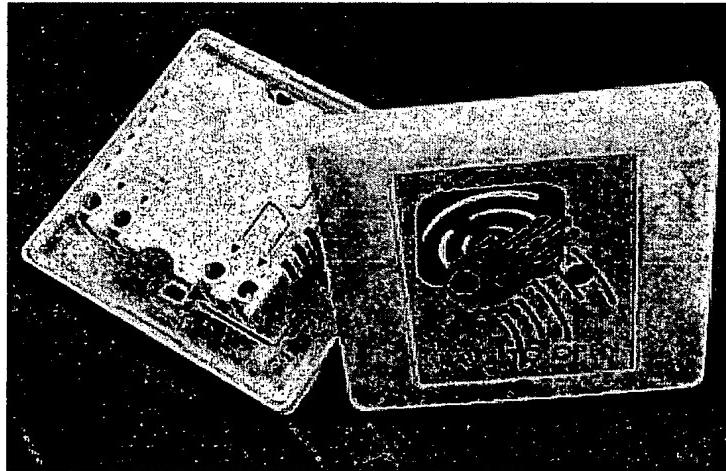
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### Infrared Contactless Switch WS-410-1



The WS-410-1 Series touchless switches are active infrared devices designed to activate full and low energy automatic doors.

Their hands free operation makes them ideal for ADA applications. Other applications include clean-room access points, request-to-exit devices (3 amp contact) and point-of-purchase displays. The WS-410 is microprocessor controlled allowing for superior operation in a smaller unit.

#### TECHNICAL SPECIFICATIONS:

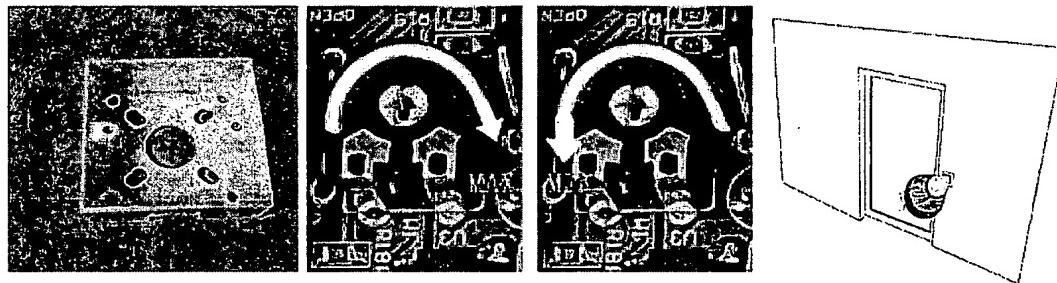
	Technology	Active infrared ( MCU inside )
	Detection Range	5 cm ~ 50 cm
	Detection Mode	Presence
	Operating Mode	Sensor:Active when there is a presence Switch:Relay toggle when there is presence
	Supply Voltage	12~24V AC/DC
	Relay Output Ratings	24VDC/120VAC
	Max.Relay Output	0.5Ampere
	Holding Time (Adjustable)	0~7s (Sense Mode)
	Dimensions	87 mm x 87 mm x 36 mm

#### Main Features

Active infrared motion sensor used as contactless switch;

Avoids any contact with hands or elbows for absolute hygiene;

Adjustable sensing field, between 5 and 50 cm;  
 Can be completely recessed into any surface;  
 Can be used in "SENSOR" mode or in "SWITCH" mode;  
 Insensitive to color, temperature or reflection from the target;



Mounting Box

Setting the sensing field

Application

DIP SWITCH	ON	OFF		
DIP- 1: Out put type	Latched Relay (SWITCH MODE)	Momentary Pulse(SENSE MODE)		
DIP- 2~4: Delay time adjust				
	DIP-2	DIP-3	DIP-4	TIME (s)
	OFF	OFF	OFF	0
	OFF	OFF	ON	1
	OFF	ON	OFF	2
	OFF	ON	ON	3
	ON	OFF	OFF	4
	ON	OFF	ON	5
	ON	ON	OFF	6
	ON	ON	ON	7

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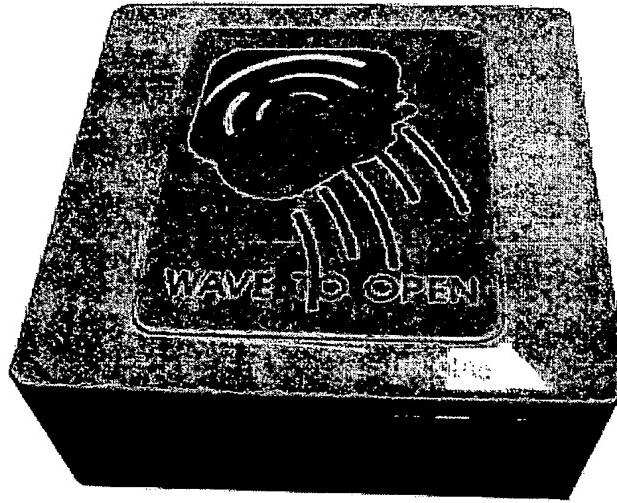
Email:

wafer@wafersensor.com

Variable Resistance : Clockwise adjust will increase the sensing field. Anti-clockwise will decrease the sensing field.


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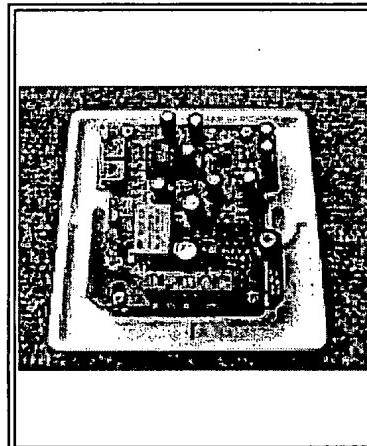
### Microwave Contactless Switch WS-410-2

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The WS-410-2 Series touchless switches are Microwave devices designed to activate full and low energy automatic doors.

Their hands free operation makes them ideal for ADA applications. Other applications include clean-room access points, request-to-exit devices (3 amp contact) and point-of-purchase displays. The WS-410-2 is microprocessor controlled allowing for superior operation in a smaller unit.

#### TECHNICAL SPECIFICATIONS:



Technology	Microwave ( MCU inside )
Detection Range	5 cm ~ 50 cm
Radiated Frequency	10.525GHZ
Operating Mode	Sensor:Stand by after hold time Switch:Toggle output
Supply Voltage	12~24V AC/DC
Relay Output Ratings	24VDC/120VAC
Max.Relay Output	0.5Ampere
Holding Time (Adjustable)	0.5~10s (Sense Mode)
Dimensions	86 mm x 86 mm x 28 mm

#### Main Features

Microwave motion sensor used as contactless switch;

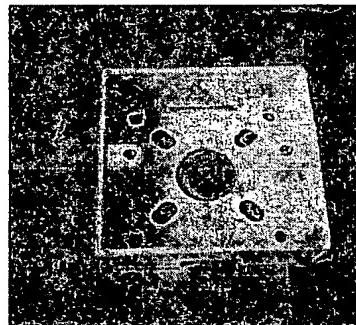
Avoids any contact with hands or elbows for absolute hygiene;

Adjustable sensing field, between 5 and 50 cm;

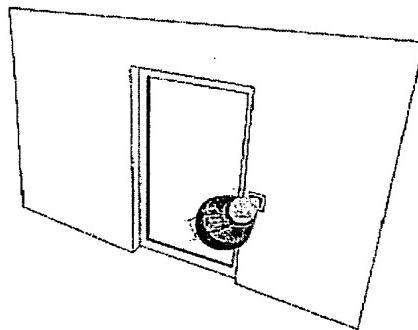
Can be completely recessed into any surface;

Can be used in "SENSOR" mode or in "SWITCH" mode;

Insensitive to color, temperature or reflection from the target;



Mounting Box



Application

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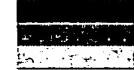
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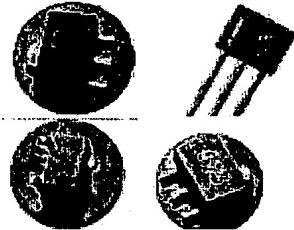
## Selection Guide of Hall Effect Sensor Elements/ICs



[Cross Reference Guide of Hall Effect ICs \(PDF file\)](#)

[Cross Reference of ChanYang Hall Effect Elements/ICs \(PDF file\)](#)

[Price List of Hall Effect Sensor Elements/ICs \(PDF file\)](#)



### Linear GaAS Hall Effect Elements (Analog Output)

Part number	Features	Typical Applications
<u>CYSJ411</u> , <u>CYSJ422</u>		
<u>CYSJ119</u>	• High linearity	• Detection of speed
<u>CYSJ1069</u>	• Low offset voltage	• Position control
	• Excellent thermal stability	• Contactless switches
	• Wide operating temperature range	• Brushless D.C motors
	• High spatial resolution	• Magnetic field measurements
<u>CYTHS119</u>	• High magnetic sensitivity	• Current sensors/transducers
<u>CYTHS124</u>		• Detection of Revolution

### InSb Hall Effect Elements (Analog Output)

Part number	Features	Typical Applications
<u>CYTY108A</u>		
<u>CYTY211</u>	• High magnetic sensitivity	• Brushless DC motors
<u>CYTY300B</u>	• High spatial resolution,	• Current sensors/transducers
<u>CYTY320</u>	• Low offset voltage	• Magnetic field measurements
		• Position control
<u>CYSH12AF</u>		• Speed detection

### Linear Hall Effect Sensor ICs (Analog Output)

Part number	Features	Typical Applications
<u>CYL3503</u>	<ul style="list-style-type: none"> <li>• High linearity</li> <li>• High sensitivity</li> <li>• Low output resistance</li> <li>• Long operating life</li> </ul>	<ul style="list-style-type: none"> <li>• Magnetometer</li> <li>• Speed detection</li> <li>• Remote instruments</li> <li>• Ferrous metal detection</li> <li>• Notch sensing</li> <li>• Brushless DC motors</li> </ul>
	<ul style="list-style-type: none"> <li>• Low current</li> </ul>	<ul style="list-style-type: none"> <li>• Contactless range measurements</li> <li>• motion detection</li> <li>• Gear-tooth sensors</li> <li>• Proximity detectors</li> <li>• Current sensors/transducers</li> <li>• Speed control systems</li> </ul>

<u>CYL49E</u>	<ul style="list-style-type: none"> <li>• Low consumption</li> <li>• High sensitivity</li> <li>• Wide linear range</li> </ul>	<ul style="list-style-type: none"> <li>• Sport equipments</li> <li>• Hall Effect current sensors</li> <li>• Speed control systems in electronic bicycles</li> </ul>
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### SMD Hall Effect Sensor ICs (Digital Output)

Part number	Features	Typical Applications
<u>CYD543</u>	<ul style="list-style-type: none"> <li>• Wide supply voltage range</li> <li>• Fast response time</li> <li>• Wide frequency and temperature range</li> <li>• Long operating life</li> <li>• Small size, convenient installing</li> <li>• Output compatible with all digital logic families</li> </ul>	<ul style="list-style-type: none"> <li>• Contactless switches</li> <li>• Speed measurement</li> <li>• Isolation measurement</li> <li>• Automotive igniters</li> <li>• Position control</li> <li>• Revolution detection</li> <li>• Brushless dc motors</li> </ul>
<u>CYD513</u>		
<u>CYD3601</u>		
<u>CYD3661</u>		

### Unipolar Hall Effect Sensor ICs (Digital Output)

Part number	Features	Typical Applications
<u>CYD3141E</u>	<ul style="list-style-type: none"> <li>• Low current consumption</li> <li>• Wide supply voltage range</li> <li>• Fast response time</li> <li>• Wide frequency range (DC - 100KHZ)</li> <li>• Long operating life</li> <li>• Small volume, install conveniently</li> <li>• Compatible with all digital logic families</li> </ul>	<ul style="list-style-type: none"> <li>• Position control and detect</li> <li>• Speed control and detect</li> <li>• Igniters</li> <li>• Warning devices</li> <li>• Braking ICs</li> <li>• Weaving control systems</li> </ul>
<u>CYD3144</u>		

### Bipolar Hall Effect Latching ICs (Digital Output)

Part number	Features	Typical Applications
<u>CYD3172X</u>	<ul style="list-style-type: none"> <li>• High sensitivity</li> <li>• high operating temperature</li> <li>• Resistant to physical stress</li> <li>• Wide supply voltage range</li> <li>• Interfacing with All Kinds of Logic Circuits Directly</li> </ul>	<ul style="list-style-type: none"> <li>• High sensitive Contactless switch</li> <li>• Brushless DC motors</li> <li>• Brushless DC fan motors</li> <li>• Current switch</li> <li>• Encoder</li> <li>• RPM detection</li> <li>• Rotor position sensing</li> </ul>
<u>CYD512</u>		
<u>CYD41</u>		
<u>CYD175</u>		

### Hall Effect Sensor ICs (Digital Output)

Part number	Features	Typical Applications
<u>CYD1024</u>	<ul style="list-style-type: none"> <li>• High Sensitivity</li> <li>• Resistant to Physical Stress</li> <li>• Wide Supply Voltage Range</li> <li>• Output compatible with all digital logic families</li> </ul>	<ul style="list-style-type: none"> <li>• High sensitive Contactless switch</li> <li>• Brushless DC motors</li> <li>• Brushless DC fans</li> </ul>
<u>CYD277</u>	<ul style="list-style-type: none"> <li>• Temperature compensation</li> <li>• wide temperature range</li> <li>• Open collector complementary output</li> <li>• Low cost, 4 pin SIP package</li> <li>• Two digital outputs</li> <li>• High reliability</li> </ul>	<ul style="list-style-type: none"> <li>• High sensitive Contactless switches</li> <li>• Brushless DC motors</li> <li>• Brushless DC fan motors</li> </ul>



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